

# TSH22045 $\varnothing$ 22mm 80/100W

Motor Data		Part Numbers			
		TSH22045H18	TSH22045H24	TSH22045H36	TSH22045H48
Nominal voltage	V	18	24	36	48
No load speed	rpm	38900	40500	39000	39700
No load current	mA	450	540	520	480
Nominal speed	rpm	35400	37200	35100	36300
Max. continuous torque	mNm	19.0	21.2	18.5	19.4
Max. continuous current	A	4.65	4.19	2.54	2.10
Stall torque	mNm	314.1	436.7	379.9	451.1
Stall current	A	69.23	75.00	41.38	37.80
Max efficiency	%	89	90	89	89
Resistance (phase-phase)	Ohm	0.26	0.32	0.87	1.27
Inductance (phase-phase)	mH	0.024	0.038	0.097	0.162
Torque constant	mNm / A	4.54	5.82	9.18	11.94
Speed constant	rpm / V	2105	1640	1040	800
Speed/torque gradient	rpm / mNm	121	90	99	85
Mechanical time constant	ms	2.38	1.77	1.94	1.68
Rotor inertia	gcm <sup>2</sup>	1.88	1.88	1.88	1.88

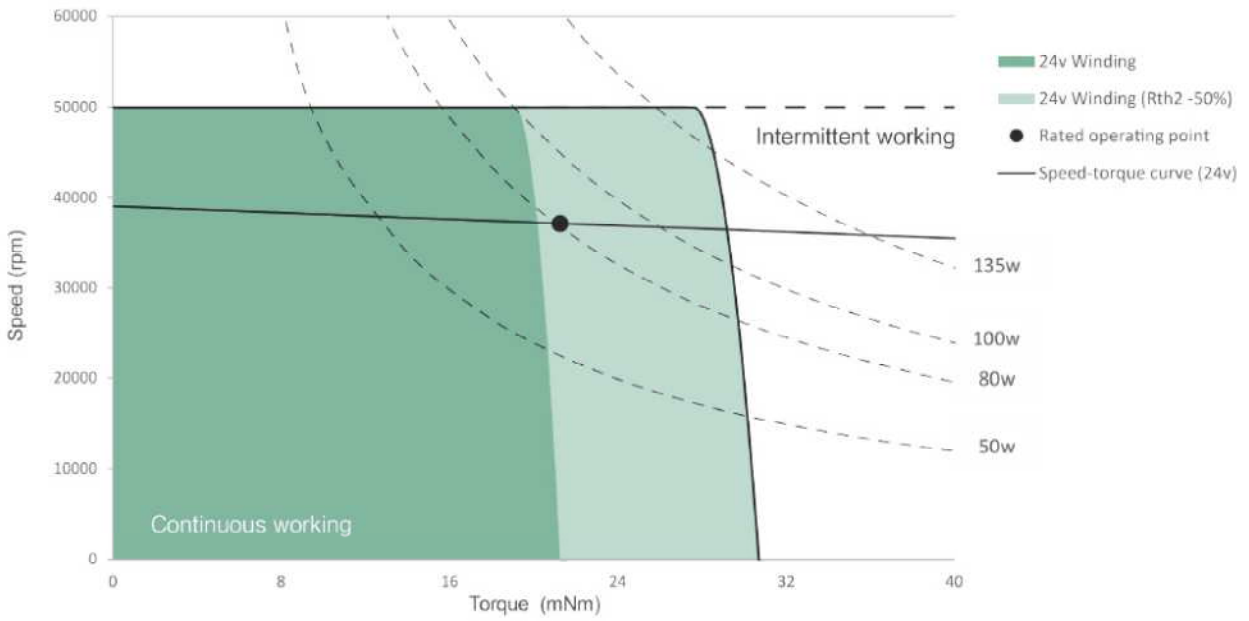
Specification		
Bearing		Ball bearing
Max speed	rpm	50000
Axial play	mm	0..0.24
Radial play		Preloaded
Max axial load (dynamic)	N	4
Max. force for press fits (static)	N	110
Max radial load (5mm from flange)	N	16
Ambient temperature	° C	-40~+100
Max winding temperature	° C	155
Thermal resistance		
Housing - Ambient	° C / W	15.0
Winding - Housing	° C / W	0.60
Thermal time constant		
Motor	s	450
Winding	s	0.98
Number of pole pairs		1
Number of phases		3
Weight	g	98

**Combination**

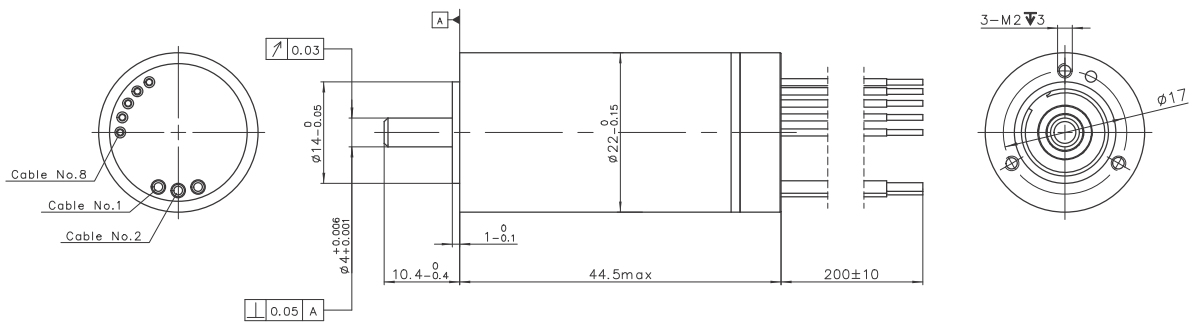
**Gearbox**  
**Encoder**  
 Please contact local sales.

**Option**  
 With hall sensor / Sensorless

## Operating Range



## Dimension



### Connection

Cable No.	Signal	Color	Wire gage
1	Motor winding 1	red	AWG 22
2	Motor winding 2	black	
3	Motor winding 3	white	
4	V <sub>hall</sub> 3...24VDC	orange	AWG 26
5	CND	blue	
6	Hall IC 1	yellow	
7	Hall IC 2	brown	
8	Hall IC 3	grey	

TSH22045Hxx-S001